

AGREEMENT BETWEEN THE DEPARTMENT OF ENERGY
OF THE UNITED STATES
AND THE
MINISTRY OF ENERGY AND INFRASTRUCTURE OF ISRAEL
IN ANAEROBIC DIGESTION DEMONSTRATIONS

This AGREEMENT is entered into between the Department of Energy of the United States (the "DOE") and the Ministry of Energy and Infrastructure of Israel ("MOEI") in Energy Research and Development in Anaerobic Digestion Demonstrations (hereinafter referred to as the "Agreement").

ARTICLE I. OBJECTIVES

The overall objective of this Project, undertaken by MOEI and DOE (hereinafter called "the Parties"), is to further the development and commercialization of integrated systems for the conversion of agricultural residues to energy and other useful products by the anaerobic digestion process. Demonstration systems, using technology already developed in Israel, will be deployed in each country. Optimal utilization of the products of the digestion process will be developed and demonstrated.

ARTICLE II. WORK SCOPE

It is understood that the methods to create specific anaerobic digestion system designs have been developed by MOEI and their contractor, Kibbutz Industries Association (KIA), at considerable expense and are proprietary to them. It is further understood that DOE shall not receive, under this Annex, information regarding these proprietary methods. However, these methods are to be used to analyze and design two site-specific systems, with the involvement of DOE. DOE will be entitled to receive, whether proprietary or not, the specific

designs of the systems and the results of the operation of the systems. With these understandings to accomplish the objectives above, a three-year collaborative demonstration project will be undertaken between the Parties. This scope of work under the Project will include the following Tasks:

(a) Using the methods described above, a system will be designed by MOEI for a U.S. farm, and for an Israeli kibbutz, with the involvement of DOE in both. Issues to be addressed in the system design studies include, but are not limited to:

- (1) demonstration site selection;
- (2) feedstock to be utilized;
- (3) feedstock collection and pre-treatment subsystems
- (4) digester type and operating parameters;
- (5) biogas handling, treatment and utilization subsystems; and
- (6) effluent slurry processing and utilization subsystem.

Immediately upon the completion of these system design studies, MOEI will submit the results to DOE.

The objective of the studies will be to conceptualize a technically feasible and economically viable system which can be expected to have commercial applications following successful demonstration.

(b) Based on expertise in the anaerobic digestion area, MOEI will design and fabricate, or otherwise procure, the various components of the demonstration equipment necessary for systems in Israel and the United States. The Israeli system will be located at site selected by MOEI and will be installed and operated by MOEI.

DOE, in consultation with MOEI and in conformance with the U.S. National Environmental Policy Act, will select a mutually acceptable site and farm in the U.S. for the erection of the U.S. system. MOEI will construct the basic units of the U.S. system in Israel, ship them to the U.S., install them at the said farm and operate the system for an initial training and trial period. During the said training and trial period, which will not exceed six months and in which DOE will be involved, MOEI will train one or more persons, as required, to be designated by DOE as the operator or operators of the system. The systems will be operated with the view to demonstrating the technical and economic feasibility of the installed equipment.

(c) Following installation of the demonstration systems, each Party will operate the system in its country for a two-year period in order to obtain and record detailed operating data. The two-year period will include the initial training and trial period for the U.S. system. MOEI will send experts to the U.S. demonstration site from time to time, as required, in order to monitor, review and advise on the progress and operation of the U.S. demonstration system. Any modifications required to be made to the U.S. system in order to optimize its performance will be made by DOE, under the instruction and advice of MOEI.

At the end of the demonstration, each Party will dispose of the demonstration unit located in its country.

ARTICLE III. SCHEDULE, MILESTONES AND REPORTING REQUIREMENTS

A set of checkpoints will be developed during the first three months of this Project which will allow for periodic assessment of Project progress and direction, and facilitate mutually agreed written modification, expansion, contraction or termination of the Project. The major milestones for this Project will include:

- (a) Beginning of system studies.
- (b) Completion of system study reports, one for each demonstration system, providing a conceptual design of each system to be demonstrated.
- (c) Design, construction, and operation of two demonstration systems.
- (d) Final report.

The Project leader in each country will provide reports to the Project Coordinator in accordance with the accepted procedures in that country, which will note the status of the Project with respect to schedules, milestones, and budgets. These reports, which will be available at least quarterly, will be made available promptly to the Project Coordinator in the other country. A detailed annual report will be jointly prepared by the two Project Leaders describing the work done, results achieved, funds expended and milestones completed. An assessment of progress made in light of the adopted set of checkpoints will be included. If at any time either Party or its contractor estimates the total cost

of the Project will exceed the total estimated cost indicated in this Agreement, or the expenditure in a given fiscal period of a Party will exceed the authorized funding by that Party for that period, that Party will immediately notify the respective Project Leader and Project Coordinator of the other Party as identified under Article IV below, in order for appropriate corrective action to be taken.

ARTICLE IV. MANGEMENT

(a) Overall responsibility for annual approval of the Project's technical content and budget will rest with the Parties.

(b) Each Party shall appoint a Project Coordinator to act on its behalf in all matters concerning cooperation under this Agreement.

(c) Each Party shall appoint a Project Leader for the detailed Management of this project. The Project Leaders shall be responsible to their respective Project Coordinator for the working contacts between Parties.

ARTICLE V. FUNDING

(a) The total costs estimated to be required to prepare the two systems studies, and design and contruct the two demonstration plants is \$800,000 which will be paid by DOE, approximately in the amount of \$300,000 in U.S. fiscal year 1980, and \$500,000 in 1981. The precise distribution of funds between U.S. Fiscal Years 1980 and 1981 will be agreed upon by the Parties as part of the initial activities under Article III.

In addition, \$150,000 per year for two years after completion of construction are estimated to be required per demonstration system to cover modifications, monitoring and operation of each demonstration system. DOE will provide \$150,000 for each of the two years to cover the actual expenses of the U.S. demonstration system, and MOEI will provide \$150,000 for each of the two years to cover the actual expenses of the Israeli demonstration system.

(b) The costs of meetings will be borne by the Party which incurs them, and visits and assignments of personnel will be borne by the Party sending the personnel, both in accordance with the normal procedures of each Party.

(c) Funds which DOE will provide for this Project which are to be expended in Israel shall be deposited with an authorized depository of MOEI in an account at the beginning of each quarter of the U.S. Fiscal Year during which the Project activities are to be funded. Subject to established fiscal controls of MOEI, the Israeli Project Coordinator shall cause said funds to be distributed as is necessary and convenient to carry out the activities authorized herein.

(d) The Parties will maintain appropriate financial records of this Project which will clearly account for all funds expended on this Project, including funds transferred from one Party to the other pursuant to V (c) above. Either Party receiving funds from the other shall within 3 months following the end of the other's fiscal year, provide the other with a certification common at its agency of the amount and use of funds provided by the other Party which were utilized.

ARTICLE VI. INFORMATION AND INTELLECTUAL PROPERTY

(a) The publication, distribution, handling, protection and ownership of information and intellectual property, and rules and procedures related thereto, not covered by this Agreement shall be determined by the Parties by unanimity.

(b) Subject to the restrictions applying to patents, copyrights and proprietary information, the Parties shall have the right to publish all information provided to or arising from the Project. For the purpose of this Agreement, proprietary information will mean information which contains trade secrets or commercial or financial information which is privileged or confidential. Information will be considered as proprietary information if it:

- (1) Is not generally known or publicly available from other sources;
- (2) Has not previously been made available by the owner to others without obligation concerning its confidentiality; and
- (3) Is not already in the possession of the recipient Contracting Parties without obligation concerning its confidentiality.

(c) It will be the responsibility of the Party providing information to the Project to identify information it furnishes which qualifies as proprietary information under paragraph (b) and ensure it is appropriately marked in accordance with

paragraph (e) of this Article VI. The Party creating arising information which disclosed or reveals proprietary information shall also have the responsibility to so mark such information. Whenever proprietary information is orally communicated, the individual communicating such information shall place the recipient on notice as to the proprietary nature of the information. The Parties will take all necessary measures in accordance with this Article VI, the laws of their respective countries and international law to protect proprietary information. If either Party becomes aware that it will be, or may be reasonably expected to become unable to meet the non-dissemination provisions of this Article VI, it shall immediately notify the other Party.

(d) Proprietary information provided to or arising from the Project work of one Party, which is transferred to the other Party, shall not be disseminated by the receiving Party except to:

- (1) Persons within or employed by the Receiving Party and concerned Government departments and agencies in the country of the receiving Party having responsibilities related to the technology of the Project; and
- (2) Prime or subcontractors of the Receiving Party located within the geographical limits of the Receiving Party's nation, for use only within the framework of their contracts with the Receiving Party in work relating to the subject matter of the proprietary information; provided, however, that any proprietary information

so disseminated shall be pursuant to an agreement of confidentiality and shall be marked in accordance with paragraph (e) of this Article VI. The owner of the proprietary information will be promptly informed of each prime or subcontractor to receive proprietary information under such an agreement. Dissemination to prime or subcontractors, other than DOE facility contractors or contractors working under this Project, shall not be made until completion of the trial period of the U.S. system.

(e) Any document which contains proprietary information shall be clearly marked with the following (or substantially similar) restrictive legend;

"This document contains proprietary information furnished in confidence under an Agreement dated _____ between the United States Department of Energy and the Ministry of Energy and Infrastructure of Israel, and shall not be disseminated or used except as provided for in the Agreement without the approval of _____. This notice shall be marked on any reproduction hereof, in whole or in part."

(f) Except for pre-existing proprietary information covering the methods for creating the designs to which DOE has agreed to receive no rights under this Agreement, all other pre-existing information and pre-existing inventions necessary for or useful in practicing the results of the Project will not be accepted for or utilized in the Project unless such information or

inventions will be licensed to the Parties, their Governments,
and the nationals of their respective countries designated by them:

- (1) royalty-free for this Project only;
- (2) royalty-free for research, development and demonstration purposes of the Party in their own country; and
- (3) on reasonable terms and conditions for commercial purposes in all countries.

(g) Information arising in the course of or under the Project ("arising information") which does not disclose or reveal pre-existing proprietary information will be freely available to both Parties for use and dissemination. A Party possessing information regarding inventions on which patent protection is to be obtained shall notify the other Party and thereafter such information shall not be published or publicly disclosed until a patent application has been filed, provided, however, that this restriction on publication or disclosure shall not extend beyond six months from the date of notice to the other Party under this paragraph. Such information shall be appropriately marked to restrict publication or disclosure.

(h) Reports containing arising information and information developed prior to or outside the Project necessary for and used in the Project, including proprietary information, but excluding methods for creating designs, will be exchanged by the Parties and will cover the work performed by each Party

under this Project. It is understood that after the trial period, the anaerobic digestion systems will be open to inspection by the public, except for specialized equipment which shall be protected as proprietary information.

(i) Inventions made or conceived in the course of or under this Project ("arising inventions") will be owned by MOEI in Israel and by DOE in the United States. Each Party, its Government and the nationals of its country designated by it, shall receive a royalty-free, non-exclusive license in the other Party's country. In third countries, arising inventions shall be owned by MOEI. DOE, its Government, and the nationals of its country designated by it shall have a non-exclusive, royalty-free license in said third countries.

(j) Each Party may take appropriate measures necessary to protect copyrightable material generated by it under this Project. Copyrights obtained will be the property of that Party; provided, however, that the other Party may reproduce and distribute such material, but will not publish it with a view to profit.

(k) Each Party will, without prejudice to any rights of inventors or authors under its national laws, take all necessary steps to provide the cooperation of its authors and inventors required to carry out the provisions of this Article VI. Each Party will assume the responsibility to pay awards or compensation required to be paid to its employees according to the laws of its country.

ARTICLE VII. OTHER AGREEMENTS

The Provisions of this Agreement shall not affect the rights or duties of the Parties under other agreements or arrangements. This Agreement also in no way precludes commercial firms or other legally constituted enterprises in each of the two countries from engaging in commercial dealings in accordance with the applicable laws of each country; nor does it preclude the Parties from engaging in activities with other governments or persons.

ARTICLE VIII. LAWS AND REGULATIONS

Activities under this Agreement shall be in accordance with laws and regulations of the countries of the Parties. All questions related to the Agreement shall be settled by the Parties by mutual agreement.

ARTICLE IX. APPROPRIATED FUNDS

It is understood that the ability of the Parties to carry out their obligations under this Agreement is subject to the availability of appropriated funds.

ARTICLE X. TERM

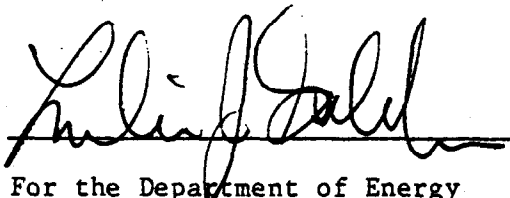
(a) This Agreement shall enter into force upon signature, shall continue in force for a three-year period, and may be amended or extended by mutual written agreement of the Parties.

(b) In the event that, during the period of this Agreement, the nature of either Party's energy programs should change substantially, whether this be by expansion, reduction, transformation or amalgamation of major elements with the energy program of a third Party, either Party shall have the right to request revisions in the scope and/or terms of this Agreement.

(c) This Agreement may be terminated at any time at the discretion of either Party, upon six months advance notification in writing by the Party seeking to terminate the Agreement. Any such termination shall be without prejudice to the rights which have accrued under this Agreement to either Party up to the date of such termination.

Done at Washington, D.C. in duplicate

the 1st day of August, 1980.

A handwritten signature in dark ink, appearing to read "Philip J. Gable", written over a horizontal line.

For the Department of Energy
of the United States of America

A handwritten signature in dark ink, appearing to read "Dan Halper", written over a horizontal line.

For the Ministry of Energy
and Infrastructure of Israel